

Outcomes Pharmaceutical Health Care Evidence of MTM Program Effectiveness

Economic Outcomes

Below is an example of some economic outcomes from various Outcomes clients:

Example of TOTAL ECA vs. LEVEL 2 ECA:

GROUP	TOTAL ECA ROI vs.	LEVEL 2 ECA ROI
1	\$4.73	\$1.87
2	\$3.16	\$1.20
3	\$4.70	\$0.82 (TIPs had just started to be implemented – had not fully matured to the level of success today)

For example in Group 1, for every \$1 the client spent on our Outcomes MTM program (fully capitated rates which include Outcomes admin fees and provider fees to the network for services), we reported \$4.73 in total ECA (Levels 1-7) and more specifically for every \$1 spent we demonstrated \$1.87 in the Level 2 ECA (Drug Product Costs) alone. In other words – the program pays for itself.

CMS Exploratory Research on MTM

During 2007-2008 Abt Associates, Inc., on behalf of CMS, reviewed 59 publications about Medication Therapy Management (MTM), interviewed 60 individuals from 46 different organizations, and conducted four in-depth case studies. Outcomes Pharmaceutical Health Care was selected as one of the four in-depth case studies and appears as Program D in the final report published by CMS on July 8, 2008. A summary of program trends is below and a copy of the full report can be found at:

<http://www.cms.hhs.gov/Reports/Downloads/Blackwell.pdf>

- Program D (Outcomes) MTM Trends
 - 3.2 interventions per patient per year
 - Average ECA per claim:
 - 2000-2002: <\$50
 - 2006: \$450
 - 45% of CMRs led to additional interventions
 - 90% prescriber acceptance of pharmacist recommendations
 - \$735 ROI per CMR that resulted in additional interventions
 - 10% of interventions may have prevented an ER visit or worse

Quality Improvement Organization (QIO) Involvement

The **Delmarva Foundation is the Quality Improvement Organization (QIO) for Maryland and Washington, DC. Delmarva focused on the impact of MTM services for its eighth scope of work.** For the project, the QIO partnered with the largest Medicare Prescription Drug Plan sponsor within CMS Region 5, an Outcomes client. The project was 12 months in length. Overall, the rate of drug-drug interactions in the group of patients who received MTM services was 8.6% at baseline. The drug-drug interaction rate for patients who received an MTM service decreased to 4.6% by one year later.



FMQAI is the Quality Improvement Organization for the state of Florida. FMQAI also evaluated the impact of Outcomes' MTM services within its eighth scope of work. For the project, the QIO partnered with a Medicare Advantage Prescription Drug Plan within CMS Region 9, and Outcomes client. The medication adherence rate in the group of patients who received MTM services was 38% at baseline. The adherence rate increased to 45% for patients who received an MTM service. In addition, patients with an A1C of less than 9 increased from 20% at baseline to 74% post receiving an MTM service. Total cholesterol also improved from 14% of patients at baseline achieving a total cholesterol goal of <200 to 62% after receiving an MTM service.

TIP Library

- Formulary-focused
 - Angiotensin Receptor Blockers
 - Bisphosphonates
 - Proton Pump Inhibitors
 - Sleep Aids
 - Statins
- Quality-focused
 - Cardiovascular
 - Initiation of beta blocker post-MI
 - Beta blocker compliance (specifically for patients with history of heart disease)
 - Initiation of ACE Inhibitor/ARB therapy for patients with diabetes and
 - ACE Inhibitor/ARB therapy compliance (specifically for patients with diabetes and hypertension)
 - ACE Inhibitor/ARB therapy compliance (specifically for patients with heart failure)
 - Elimination of duplications in therapy
 - Diabetes
 - Thiazolidinedione safety (specifically for patients with heart failure)
 - Biguanide compliance
 - Sulfonylurea compliance
 - Thiazolidinedione compliance
 - Elimination of duplications in therapy
 - Respiratory
 - Initiation of short-acting beta-2 agonist in patients with controller therapy
 - Inhaled anti-cholinergic compliance
 - Inhaled corticosteroid compliance
 - Modification of non-selective beta blocker therapy in patients with respiratory conditions

HEDIS measures targeted with TIPS

1. Pharmacotherapy of COPD Exacerbation/Use of Appropriate Medications for people with Asthma
 - Asthma Rescue inhaler (needs therapy)
 - Asthma Controller
 - Albuterol CFC
 - LABA Needs Therapy
 - SABA Needs Therapy
 - Steroid Underuse
 - SABA Overuse
 - Steroid Duplication
 - Non-Selective BB
2. Cholesterol Management for Patients with Cardiovascular conditions
 - Statin CVD
3. Beta-Blocker Treatment after a heart attack
 - BB Post MI
4. Persistence of Beta-Blocker Treatment after a heart attack
 - BB Underuse
 - BB Compliance
5. Comprehensive Diabetes Care
 - Biguanide Underuse
 - TZD Underuse
 - Sulfonylurea Underuse
 - TZD Safety
 - Diabetes ACE-I
6. Annual monitoring for patients on persistent medications
 - BB Compliance
 - ACE-ARB Underuse
 - ACE-ARB Compliance
 - BB Underuse
 - CCB Underuse
 - Statin Underuse
 - Sulfonylurea Underuse
7. Use of High Risk Medications in the Elderly/Fall risk management
 - Fluoxetine
 - Amitriptyline
 - Doxepin
 - Propoxyphene
8. Osteoporosis Management for Women who had fracture
 - Bisphosphonate Compliance
 - Bisphosphonate Needs Therapy
 - Calcium OTC Needs Therapy
9. Pneumonia Vaccination Status for Older Adults/Flu Shots for Older Adults
 - Immunizations: Pneumonia, Influenza

Sample TIP Program Results

- For those patients identified as underusing a statin medication, 75% of all TIPs returned resulted in improved compliance.
- Of those patients identified as underusing their steroid medication for asthma therapy, 70% of all completed interventions resulted in improved patient compliance.
- Of the TIPs returned for those patients identified as overusing a SABA, 67% resulted in improved/altered patient compliance.
- TIPs which identified patients who had advanced heart failure (NYHA class III and IV) and were taking a TZD resulted in a 50% discontinuation of this unsafe medication.
- TIPs were generated for patients taking ACE-I and ARBs who were identified as being non-compliant. Those TIPs which were acted on resulted in a 48% improvement in patient compliance.
- TIPs were generated for elderly patients who were taking potentially inappropriate medications, such as fluoxetine. Of those TIPs returned, 27% of the pharmacists were able to obtain authorization to discontinue the identified medication.
- The Florida Medicaid Quality Related Events (QRE) Program included approximately 1.2 million MTM service-covered patients statewide in Florida. Within the QRE Program, targeted interventions were identified, generated and distributed to the pharmacy network regarding psychiatric medications. Compliance-focused interventions resulted in a 69% success rate in improving patient adherence with the targeted psychiatric medications.